

# Transmission Line Siting Constraints

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# Interconnection Disputes are Barriers

- *Consume time and resources*
- *Costs mount while the clock ticks*
- *Competitors advance their positions*

# Uniform Interconnection Study Process

- *Recognize both benefits and impacts*
  - *Reduced RMR cost*
- *Expanded operating limits*
  - *Reduced output at local generators*
  - *PTO's responsibility, not the generator's*
- *CAISO should resolve technical disputes over interconnection plan.*

60 days for an SIS or DFS is fine.

- *DFS has been up to 180 days.*
- *Often, neither timeline is met.*
- *Exception: SIS requests for small units responding to urgent needs*

Litigating interconnect requirements  
at the CEC invites delay.

- *CAISO process should determine the technical interconnection requirements.*
- *CAISO's determination should be definitive and should not be litigated in the AFC process.*

## Queuing creates impediments.

- *SIS/DFS may not be valid if an earlier project stalls.*
- *Requirements may be unduly onerous until “vaporware” projects are removed.*
  - *Too expensive to “reliably connect”*
  - *More difficult to permit*
- *Projects should meet milestones or lose place in queue.*

Let market decide between generation and transmission.

- *Market mechanism so non-transmission alternatives can compete transmission.*
- *Regulators should determine that the alternative selected by the market mechanism is environmentally acceptable.*
- *Changing to a single regulatory authority is not essential.*

# Congestion affects generation siting decisions.

- *Recognition lags development.*
- *Developers converge on the “good” spots*
- *Often too many projects under way before congestion becomes apparent.*



## *Can new generators impact transmission access for existing generators?*

- *That depends on the rules for access.*
- *In some areas, existing generators have all the access rights.*
- *In California, “in place” generators and new generators compete for access.*
  - *Promotes economic efficiency.*

# Can congestion keep existing generators from the market?

- *Depends on the response of the PTO and the CAISO to an interconnection request.*
- *Reactionary response: “Congestion is not our problem.”*
  - *uneconomic congestion*
  - *higher energy prices*
  - *higher RMR costs*
  - *narrow supply margins*

## Can congestion keep existing generators from the market?

- *Proactive response: “We’ll provide new transmission to reasonably mitigate local congestion.”*
  - *enhances reliability*
  - *increases the depth of the market*
  - *reduces the delivered cost of energy*
- *Will keep local congestion within reason and attract new generation.*

Limited access for older generation  
can affect the supply adequacy.

- *Today's situation: Inadequate supply*
  - *Need to avoid congestion so new and old generators can both run.*
- *Desired future situation: Ample supply.*
  - *Old generation should be retired as dictated by market conditions.*
- *Access should not be assured for old units that are not competitive.*

# Congestion Mitigation

- *Automated remedial action schemes enhance transmission capability*
  - *Good long-term solutions for infrequent contingencies*
- *Uneconomic transmission congestion should be mitigated.*
  - *PTO and CAISO should be proactive.*
  - *New transmission may be warranted.*

# Congestion Mitigation

- The grid planning process should mitigate uneconomic congestion.
  - *Perhaps state involvement and funding if the CAISO and PTOs won't do it.*
- An effective market mechanism for congestion mitigation may not be practical.
  - *recognizes the benefits to all parties*
  - *rewards each party commensurately*

# Congestion Mitigation

- *Problems if generators own transmission.*
  - *Compromises EWG status.*
  - *Disputes likely over allocation of incremental capacity.*
  - *The generator's share of the mitigation benefits alone may not justify mitigation.*

# Congestion Mitigation

- *Reliance on the "market" to sponsor economic transmission reinforcements is a prescription for "do nothing", which experience shows is often the wrong solution.*